UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,918	07/25/2001	Newton Howard	5H01.1-011	5491

23517	7590	05/05/2006	EXAMINER

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EXAMINER

HARBECK, TIMOTHY M

ART UNIT	PAPER NUMBER
3628	

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/912,918	HOWARD, NEWTON
	Examiner	Art Unit	
	Timothy M. Harbeck	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 10-15 are objected to because of the following informalities: Independent

claims 10 and 15 use the term "the instructions" which has no antecedent basis. The

examiner believes that the applicant intended to use the phrase "the messages," and

the claims have been examined under this assumption. Appropriate correction is

required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Varon (US PAT 6,420,993 B1).

Re Claim 1: Varon discloses an automated system for notifying a first user who

issued a first instruction and a second user who issued a second instruction of a

potential conflict comprising:

- An input device for receiving the first instructions entered by the first user

   (Column 4, lines 24-26; "flight data plans," flight data processor (24a)

   receives plans submitted by aircraft personnel to designate routes.")

- A passive (radar, transponders) input device for receiving the second instruction entered by the second user (Column 4, lines 8-21; flight data and plans for second plane)

- An intention determination system for analyzing the instructions, determining if execution of the instructions complies with the users' intent, and issuing an alert if execution of the instructions creates the potential conflict (Column 4 lines 26-38; Column 4 line 66-Column 5 line 18)

Varon does not explicitly disclose first and second user interfaces for respectively notifying the first and second user by displaying the alert. However it was well known in the art and therefore would have been obvious to anyone of ordinary skill at the time of invention for airplanes to have user interfaces such as a radar system in the cockpit in order to notify and display the pilots if there is a potential conflict with regards to other aircraft. If there were no means to relay this information from the air traffic controller to the pilots, the pilots might not know of the potential conflict and may not be able alter their routes to avoid the issue.

Re Claim 2: Varon discloses the claimed system supra but does not explicitly disclose wherein the instructions include text messages. However the submission of text messages is a notoriously old and well-known form of electronic communication and would have been obvious to one of ordinary skill at the time of invention to include to the system of Varon. One would be motivated to dot his in order to provide short and succinct instructions in a language that is easily viewed and interpreted by an input device.

Re Claim 3: Varon discloses the claimed system but does not explicitly disclose wherein the instructions are issued by military personnel. However, Varon does not the use of similar systems for military applications (Column 1, lines 38-43). It was well known for military planes to be piloted and tracked by military personnel and therefore it would have been obvious to anyone of ordinary skill at the time of invention to conclude that said military personnel were issuing the instruction including flight routes and mission plans to the system.

Re Claim 4: Varon discloses the claimed system and further discloses wherein the input device includes a device selected from the group consisting of a cellular phone and a radio transmitter (Column 3, lines 65 - Column 4 line 7).

Re Claim 5: Varon discloses the claimed system supra and further discloses wherein the passive input device includes a device selected from the group consisting of a cellular phone and an electronic pad, a sensor ("transponder" Column 4, lines 17-19; "second portions of the target signal."), and a satellite.

Re Claim 6: Varon discloses the claimed system supra but does not explicitly disclose a printer for creating a hard copy of the alert. However it was well known in the art at the time of invention to use a printer for such applications and therefore it would have been obvious to anyone of ordinary skill to include this feature to the system of Varon. One would be motivated to do this in order to have a record of past alerts to review the past conflicts in order to adjust future flight plans and timing patterns to avoid similar problems in the future.

Re Claim 7: Varon discloses the claimed system supra but does not explicitly disclose wherein each of the user interfaces includes a node-based navigation system that allows user customization of how the alert is displayed. However it was well known for node-based navigation systems to be used by pilots in order to display an aircrafts position relative to other aircraft. Furthermore it was well known for a user to customize a display interface so that each individual can quickly and easily interpret the data on the display in a manner that is most comfortable to them. Therefore it would have been obvious to include these features to the system of Varon so that each pilot can be notified of a potential conflict and furthermore can view the upcoming hazard so that evasive action can be taken.

Re Claim 8: Varon discloses the claimed system supra and discloses wherein at least one of the first users issues at least one of the instructions from a remote location (planes are inherently in remote locations).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Varon as applied to claim 1 above, and further in view of Ladwig (US 6,408,404 B1).

Re Claim 9: Varon discloses the claimed method supra and further discloses

- An input module for receiving and processing the instructions (Column 4, lines 24-26; Ref 24a)

- A rule base analyzer for periodically retrieving and processing at least some of the instructions and reference information to determine if

execution of the instructions creates the potential conflict (Column 4, lines

30-37, lines 60-65)

Varon does not explicitly disclose:

- A language converter for converting the instructions from a natural

    language format to a position-based format wherein the conversion

    generates restructured instructions

- A database for storing both the instructions, the restructured instructions

    and reference information

Ludwig discloses a system and method for ensuring and managing situation

awareness including a language converter for translating data streams (Column 5, lines

19-27 and Column 6, lines 20-21). It would have been obvious to anyone of ordinary

skill at the time of invention to include this feature to the system of Varon so that there is

not a substantial delay if the instructions are received in a language that is not the

standard. Any delay in the instruction processing is potentially dangerous as the planes

in the Varon system may be on a path for conflict. The sooner this is recognized, the

sooner evasive action can be taken. By providing a language translator between the

user and the system and delays can be minimized.

Furthermore, Ludwig discloses a database for storing information related to the

instructions and reference information (Column 5, lines 48-58; Ref 190). It would have

been obvious to anyone of ordinary skill at the time of invention to include this feature to

the system of Varon so that there is a way to recall the instructions in the instance that

there is a problem in the language translation. If the language transformation was

improper and the original instructions were not stored, the original information would be

lost and there would not be any means to determine the original intent of the

instructions. This would be hazardous as potential conflicts with aircrafts are very time

dependent and any delay in issuing an alert would be dangerous.

The references also do not disclose wherein the language converter converts the

instructions into a positions based format. However this step is old and well known in

the air traffic control, and would have been obvious to anyone of ordinary skill to allow

tactical planners to assess the geographical position of the parties involved in order to

assess the risk involved. Utilizing a position-based format allows each party to be

marked respective to one another, which allows for more efficient planning.

Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ludwig (6,408,404 B1) in view of Varon.

Re Claim 10: Ludwig discloses a system and method for ensuring and

managing situation awareness for checking of potentially conflicting natural language

messages issued by a plurality of users comprising:

- An input module for processing the messages received from at least one

    input device (Column 7, lines 51-57)

- A language converter for converting the instructions from a natural

    language to a format, wherein the conversion generates restructured

    messages (Column 5, lines 24-26; Column 6, lines 20-21)

- A database for storing both the instructions, the restructured messages and reference information (Ref 195; Column 5, lines 48-58)

- A rule-based analyzer for periodically retrieving and processing at least some of the messages, restructured messages, and reference information wherein the analyzer generates an alert if execution of a first portion of the instructions creates the potential conflict (Column 7, line 65- Column 8 line 14)

- A plurality of user interfaces for respectively notifying the first portion of users of the potential conflict by displaying the alert (Column 8, lines 15-18).

Ludwig does not disclose wherein the system is an intention determination system for predictive checking of potentially conflicting messages. Varon discloses an air traffic control system that periodically monitors air traffic based on current situational awareness as well as intention-based information (i.e. flight path; Column 4, lines 24-26) and issues alerts about potential conflicts. It would have been obvious to anyone of ordinary skill in the ordinary art at the time of invention to include the intention determination aspect of Varon to the disclosure of Ludwig in order to provide the system with a more forward looking timeline of potential events and military conflicts. Ludwig discloses that a his invention is intended to have a dynamic temporal flow and present information as events spread over a timeline with a past present and a future (Column 6, lines 48-54). By providing high probability future events (such as flight plans for military operations), the system can extend even further and provide the user with even

more information from which to make decisions. This would further assist in assessing

events and issuing rule-based actions.

The references also do not disclose wherein the language converter converts the

instructions into a positions based format. However this step is old and well known in

military conflicts, and would have been obvious to anyone of ordinary skill to allow

tactical planners to assess the geographical position of the parties involved in order to

make a coordinated plan. Utilizing a position-based format allows each party to be

marked respective to one another, which allows for more efficient planning.

Re Claim 11: Ludwig in view of Varon discloses the claimed system supra and

while not explicitly disclosing wherein the messages include orders issued by military

personnel, Ludwig discloses the advantages of his system for low intensity conflict

monitoring, military intelligence and strategic threat assessment (Column 1, lines 44-

48). It was old and well known in the art for military personnel to handle issues of

military intelligence and strategic threat assessment and therefore would have been

obvious to anyone of ordinary skill at the time of invention that messages relating to

such matter are issued by military personnel.

Re Claim 12: Ludwig in view of Varon discloses the claimed system supra and

Ludwig further discloses wherein the input device includes a device selected from the

group consisting of a cellular phone, a radio transmitter, an electronic pad, a sensor and

a satellite (Column 5, lines 29-31).

Re Claim 13: Ludwig in view of Varon discloses the claimed system supra and

Ludwig further discloses wherein the user allows user customization of how the alert is

displayed (Column 8, line 14-17 and 29-31). While not explicitly disclosing a node

based navigation system, these types of systems are old and well known in the art

(such as a grid based satellite tracking system) and would have been obvious to anyone

of ordinary skill at the time of invention. One would be motivated to include this feature

in order to coordinate disjointed parties and locate their positions relative to one

another.

Re Claim 14: Ludwig in view of Varon discloses the claimed method supra

wherein at least one of the messages is issued from a remote location (Column 2, lines

10-14 "disjointed sources").

Re Claim 15: Ludwig discloses a system for potentially conflicting natural

language messages issued by a plurality of users comprising:

- A plurality of input devices (Column 7, lines 43-50) for receiving the

    messages to determine relevance (Column 7, lines 14-15; "priority")

A system positioned to receive the messages from the input devices comprising:

- An input module for processing the messages received from at least one

    input device (Column 7, lines 51-57)

- A language converter for converting the instructions from a natural

    language to a format, wherein the conversion generates restructured

    messages (Column 5, lines 24-26; Column 6, lines 20-21)

- A database for storing both the instructions, the restructured messages

    and reference information (Ref 195; Column 5, lines 48-58)

- A rule-based analyzer for periodically retrieving and processing at least some of the messages, restructured messages, and reference information wherein the analyzer generates an alert if execution of a first portion of the instructions creates the potential conflict (Column 7, line 65- Column 8 line 14)

- A plurality of user interfaces for respectively notifying the first portion of users of the potential conflict by displaying the alert (Column 8, lines 15-18).

Ludwig does not disclose wherein the system is an intention determination system for predictive checking of potentially conflicting messages. Varon discloses an air traffic control system that periodically monitors air traffic based on current situational awareness as well as intention-based information (i.e. flight path; Column 4, lines 24-26) and issues alerts about potential conflicts. It would have been obvious to anyone of ordinary skill in the ordinary art at the time of invention to include the intention determination aspect of Varon to the disclosure of Ludwig in order to provide the system with a more forward looking timeline of potential events and military conflicts. Ludwig discloses that a his invention is intended to have a dynamic temporal flow and present information as events spread over a timeline with a past present and a future (Column 6, lines 48-54). By providing high probability future events (such as flight plans for military operations), the system can extend even further and provide the user with even more information from which to make decisions. This would further assist in assessing events and issuing rule-based actions.

The references also do not disclose wherein the language converter converts the

instructions into a positions based format. However this step is old and well known in

military conflicts, and would have been obvious to anyone of ordinary skill to allow

tactical planners to assess the geographical position of the parties involved in order to

make a coordinated plan. Utilizing a position-based format allows each party to be

marked respective to one another, which allows for more efficient planning.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig.

Re Claim 16: Ludwig discloses a user interface comprising:

- A display panel (Fig 1 Ref 112)

- A preferences panel for selecting display preferences for objects that

  appear in the display panel (Column 7, lines 29-31)

Ludwig does not explicitly discloses a node-based navigation system including

four navigational nodes representing preferences (Column 8, line 26), areas of

operations, units and fragmentary orders; wherein the selection of one of the nodes

repositions that node in the center. However, Ludwig does disclose that the system is

relevant to military intelligence and strategic threat assessment (Column 1, lines 44-48).

It was old and well known for such operations to be concerned with a particular

geographic area where the military presence (i.e. units) is located as well as their

activities within the areas (i.e. fragmentary orders or stream management Column 8,

line 25). It would have been obvious to anyone of ordinary skill in the art at the time of

invention to allow the user to display this information in the system of Ludwig as this

information is vital to any assessment of military intelligence and conflict strategy. In

preparing for an operation decision makers would need to have this information readily

available in order to formulate an appropriate plan. Furthermore the system of Ludwig

discloses a variety of navigation controls and toolbars within the user interface to allow

for display management (Column 8 line 24-Column 9 line 45), including wherein the

selection of a node repositions that node in the center (Column 8, lines 62-63). While

not explicitly stating the specific nodes again the information represented by these

nodes is well known as being vital to any military planning system and would be obvious

to anyone of ordinary skill in order to completely assess a situation, apply a set of

parameters and issue orders with respect to the situation.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Bergljung et al (US PAT 6,114,900) discloses a device for real time simulation for

simulating a path of an object in a three-dimensional coordinate system, including

plotting objects on a display monitor.

Agres is an article that discloses the use of virtual reality system being utilized by

the military in order to analyze existing conditions of a military conflict including linking

battlefield soldiers to command and control headquarters via satellites and
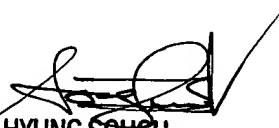
transponders.

DeGeorge discloses a role and war game playing system wherein players define a strategy, tactic or action of a game piece, character or unit and make a set of decisions at a variety of engagements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Harbeck whose telephone number is 571-272-8123. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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